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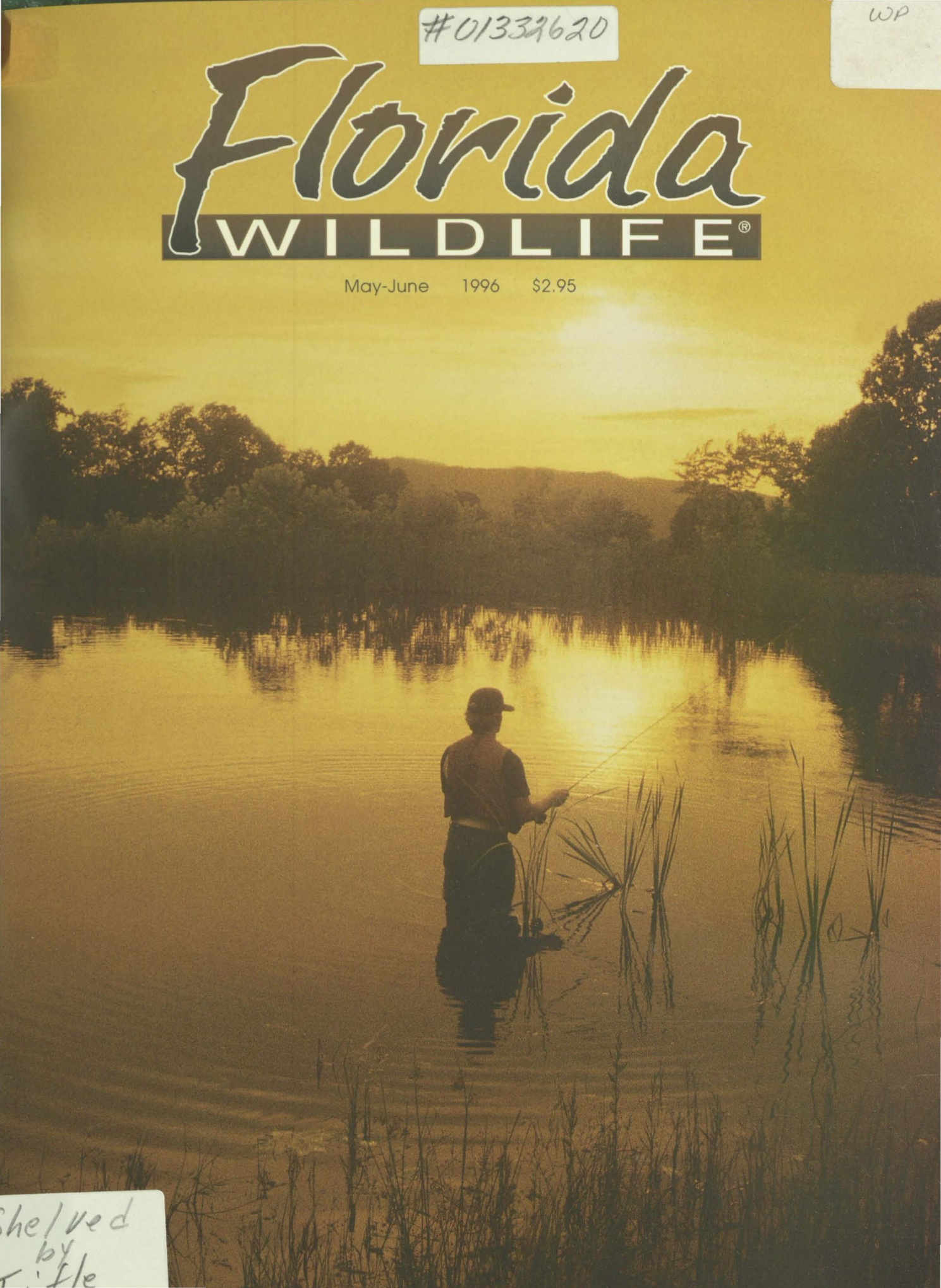

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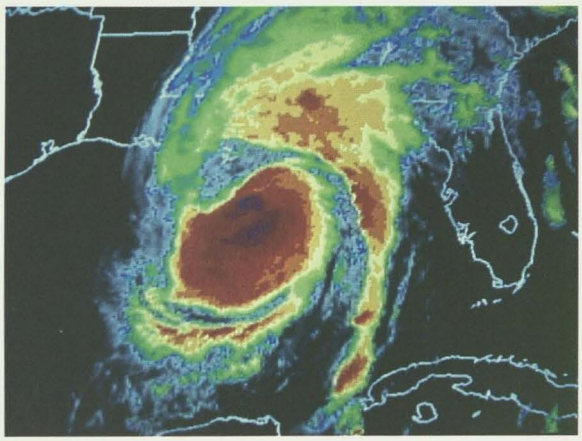

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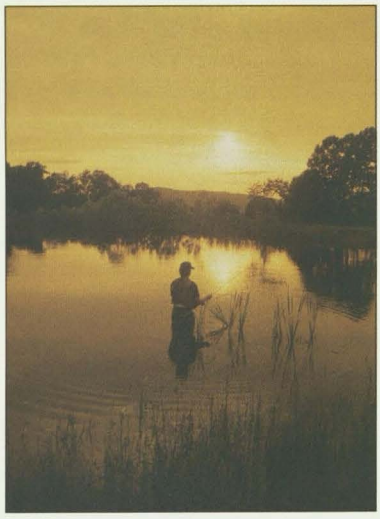

***Front Cover**: Fishing in a North Florida pond by SOC Clay*
***Back Cover**: Torreya State Park photo by James Valentine*

Editor's note: Featured on the front cover of FLORIDA WILDLIFE's March/April edition was a photograph of a largemouth bass by Doug Stamm. The photographer was misidentified. FLORIDA WILDLIFE regrets the error.

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Flies as Big as Oranges Gators as Thick as Flies

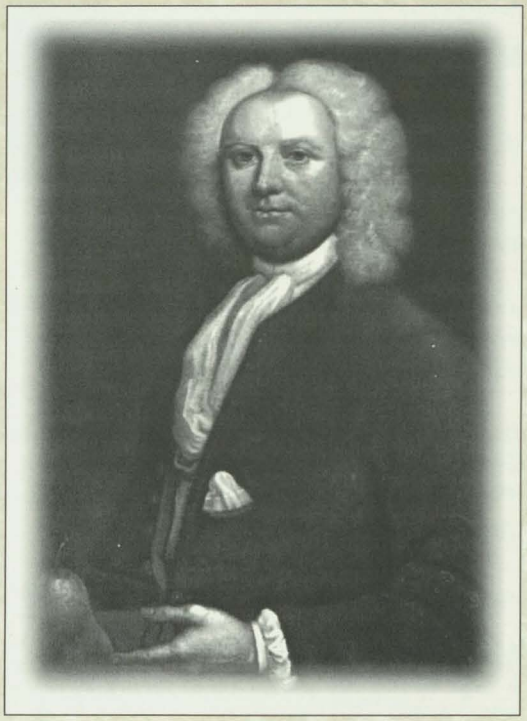
By Gary Moore

Some 222 years ago, the wildlife of Florida starred in a bestseller. William Bartram, a young scientist and adventurer from Philadelphia, journeyed to British Florida in 1774. The tale of natural splendor he brought back is known today as *The Travels of William Bartram.* This passionate book, coupling a love of wild beauty with detailed observation, swept onto the international stage.

Eagerly read and annotated by the English poet Samuel Taylor Coleridge (among many others), *The Travels* caused snakebirds, gator roars and limestone fountains in Florida to creep into great literature. Two of Coleridge's epic poems, "The Rime of the Ancient Mariner" and "Kubla Khan," hold images from Bartram's Florida, according to scholars. So does William Wordsworth's "Ruth" ("I wandered lonely as a cloud..."). The subtropical beauty of Florida came flooding into the dreams of a civilization – through a humble, joystruck pen.

In May 1774, Bartram set off by canoe with some British traders up the St. Johns from the Atlantic. British rule was new in Florida, only nine years transferred from Spain. There were trading posts to be set up, pacts to be made with "Seminoles" in the interior.

Beaching the canoe at night, spreading blankets and skins, Bartram and his guides lived off the land. "How supremely blessed were our hours at this time! plenty of delicious and healthful food..."



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Bass-fishing, he found, required the use of flies the size of oranges. Two of his friends would canoe alongside floating beds of water vegetation, extending a pole with a line. But the line was only 20-inches long. It dangled above the water. At its end, three large hooks were bound back-to-back. Unbaited, the triplet was buried in a big, fluffy ball, as large as Bartram's fist.

This fly was made from white hairs off a deer's tail, red swatches donated by an old shirt garter and assorted bird feathers. They called it a bob. It was dangled just above the water at the edge of the weeds. The angler "swings the bob backwards and forwards, just above the surface, and sometimes tips the water with it...the unfortunate cheated trout instantly springs from under the weeds and seizes the supposed prey."

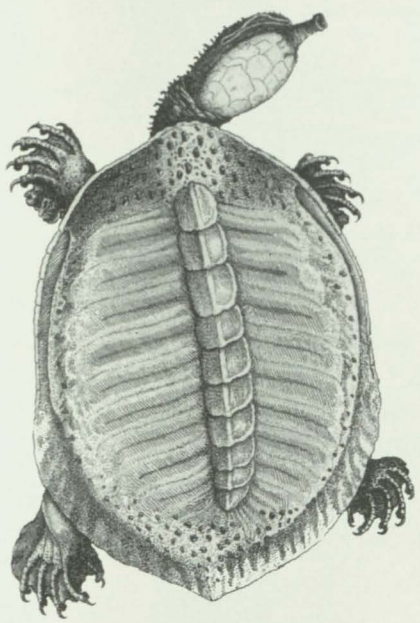
The bass in those primeval waters were large enough for such lures, Bartram assures us. "The head of this fish makes about one-third of his length, and consequently the mouth is very large: birds, fish, frogs and even serpents, are frequently found in its stomach... They frequently weigh fifteen, twenty and thirty pounds, and are delicious food." To what extent Bartram pioneered the more creative elements in the Florida fish story is not recorded.

One of the problems with catching large messes of fish was unwelcome

Bartram's Travels April 1773 – October 1776

dinner guests. Occasionally a wolf or a bear appeared at Bartram's camp, but the worst intruders were alligators. The dilemma was driven home as he continued up the St. Johns alone, with his trusty flintlock leaned against the gunwale of the canoe.

Camped on an island, he awoke at dawn. "At the approach of day the dread voice of the alligators shook the isle, and resounded along the neighboring coasts." Upstream, the gator population thickened. He described watching a midstream battle between two of them. Some 60 miles above Lake George he made camp at an inlet, then returned to the canoe, planning to fish for his supper. This brought a surprise.



Softshell Turtle by William Bartram

The inlet had grown crowded with olive-colored backs. They were greatly interested in a canoe that smelled like a fish market. Recalling the turbulence of the midstream fight he had seen, Bartram left his musket onshore, fearing capsize. Armed with a club, he eased out through the gators to fish.

The watchers gave way. But he was "pursued by several large ones." Then things happened rapidly. "I was attacked on all sides, several endeavoring to overset the canoe... Two very large ones attacked me closely, at the same instant, rushing up with their heads and part of their bodies above the water, roaring terribly and belching floods of water over me. They struck their jaws together so close to my ears, as to almost stun me, and I expected every moment to be dragged out of the boat and instantly devoured."

Mooring again at camp, he found a 12-footer reposing half out of the water near the canoe, eyeing him without moving. When he came back with his gun, the visitor had one foot on the boat. As Bartram cleaned his fish, another gator rushed in and took some.

Around dusk, there came "a tumultuous noise." Rushing to investigate, he found out why so many alligators had accumulated in the first place. It wasn't because of him and his perfumed boat:

"The river...shore to shore, and perhaps near half a mile above and below me, appeared to be one solid bank of fish, of various kinds, pushing through this narrow pass...." A bottleneck in the river made a natural trap, though the movement by so many fish, of different species, went unexplained. Bartram had other fish to fry. "The alligators were in such incredible numbers, and so close from shore to shore, that it would have been easy to have walked across on their heads, had the animals been harmless. The wall of fish was caught and swallowed by the devouring alligators. I have seen an alligator take up out of the water several great fish at a time, and just squeeze them betwixt his jaws, while the tails of the great trout flopped about his eyes and lips, ere he had swallowed them...This scene continued at intervals during the night.

"The noise...kept me awake the ▷

greater part of the night," mingled with "the whooping of owls, screaming of bitterns, (and) wood-rats running amongst the leaves." But other evenings brought gentler music: "cooings of the innocent dove...the shrill voice of the whip-poor-will and active mock-bird." Time has left some mysteries. In some cases, Bartram called Florida birds by Old World names.

He listened to "the variable and tuneful warbling of the nonpareil...the more sprightly and elevated strains of the blue linnet and golden icterus." Nonpareil means "without equal."

Could this refer to the unequalled brilliance of the cardinal? "Icterus" means "yellow." Was it a warbler? A migratory spring goldfinch? A linnet is a finch. Was the "blue linnet" an indigo bunting? A finch-sized bluebird?

Switching to horseback travel, Bartram crossed sand ridges westward. There, when it was about to rain, he heard "the rural converse of the various tribes of tree frogs" and "the soothing love lays of the amorous cuckoo." The yellow-billed cuckoo is still known as a "rain crow" in parts of the South, a prophet of deluges. It reminds that Florida's peninsula points toward the tropics, where toucans and howler monkeys announce the coming of jungle rains. Bartram loved Florida's subtropical luxuriance. Everywhere were lessons.

His pack train reached "the extensive Alachua savanna" (apparently Payne's Prairie in today's Alachua County) "a level green plain, above fifteen miles over, fifty miles in circumference, and scarcely a tree or bush of any kind to be seen on it." There were "innumerable droves of cattle; the lordly bull, lowing cow and sleek capricious heifer. The hills and groves re-echo their cheerful, social voices." These were semi-feral stock, kept by Seminoles but descended from the old La Chua ranch, already several generations gone in Bartram's day. The Seminole leader at "Alachua savanna" was called Cowkeeper. On the prairie, wild animals mixed with tame. The marshy expanse presented "herds of sprightly deer, squadrons of the beautiful fleet Seminole horse, flocks of turkeys, civilized communities of the sonorous watchful crane." These intermingled. But predators weren't far away.

"Observing a company of wolves...we rode up towards them; they observing our approach, sat on their hinder parts until we came nearly within shot of them, when they trotted off towards the forests, but stopped again and looked at us, at about two hundred yards distance: we then whooped, and made a feint to pursue them, when they separated from each other, some stretching off into the plains, and others seeking covert in the groves... The wolves of Florida are larger than a dog, and are perfectly black, except the females, which have a white spot on the breast; but they are not so large as the wolves of Canada and Pennsylvania, which are of a yellowish brown colour..." As the wolves departed, vultures in nearby trees settled to the ground. The wolves had been dining on a dead horse. However, the vultures soon found themselves held at bay by another scavenger, a bald eagle.

Farther on, a herd of deer was playing in a pond, some lying lazily in the water, others "prancing like young kids; the young bucks in playful sport, with their sharp horns hooking and spurring the others, urging them to splash the water." Bartram's guide quickly planned a kill. However the joy of the deer at play had touched the voyager. "I endeavored to plead for their lives; but my old friend, though he was a sensible, rational and good sort of man, would not yield to my philosophy. He requested me to mind our horses..." Here, too, was prophecy of future Florida. Such disagreements would become repetitious.

The Travels of William Bartram gives an almost cinematic view of Florida as it was, when bears were seen every day along the St. Johns and parakeets flocked the Suwannee. In what was lost, we glimpse the heart of what can yet be saved.

Free-lance writer, Gary Moore, is a frequent contributor to national magazines, newspapers and broadcast network features. He resides in Florida.

WILLIAM BARTRAM PORTRAIT, PAGE 2, COURTESY OF FLORIDA STATE ARCHIVES

JAMES VALENTINE

Alachua Sink in Payne's Prairie State Preserve was included in William Bartram's route.

Grand Slam Pickerel Tournament

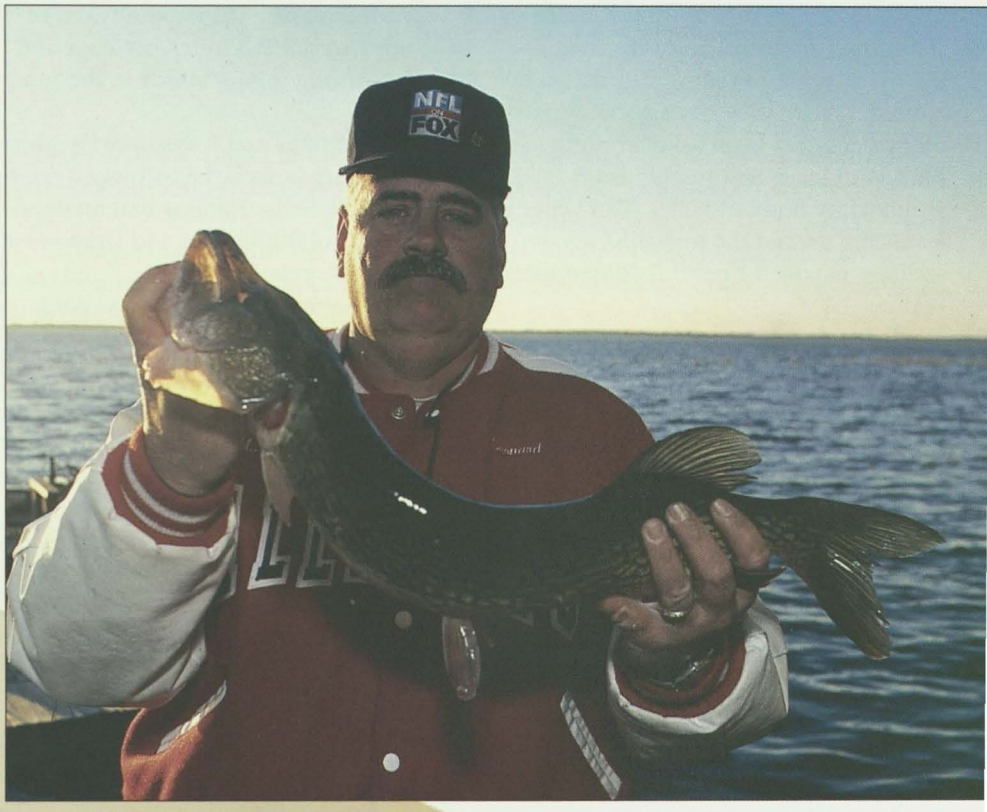
By Lt. Dewey A. Weaver

The tournament was like other fishing events with prize money, sports superstars and lots of eager anglers. Yet the star of the show was an unheralded newcomer to the tournament trail. This was the first tournament I had witnessed that featured the chain pickerel as the prize catch.

Pickerel are top-of-the line predators like bass but are far more aggressive and readily take flashy lures or live shiners. They live in vegetated areas and compete with bass for the available food supply. Once hooked, they are strong fighters with tail-walking aerial displays and head-shaking fury. Few fish in freshwater fight better than the pickerel.

For years, Florida anglers have scorned the chain pickerel as a game fish. Taking a back seat to the more popular largemouth bass and the scrappy panfish, the pickerel is considered a nuisance. Often anglers returned the fish to the water without a second thought. Part of the disdain for the fish is due to a mouthful of small needle-like teeth and the ability to destroy fancy bass lures. Also, some anglers think that the chain pickerel is useless as table fare because the fish is bony.

In reality, pickerel make excellent eating if they are cleaned properly. According to Win Boggs, manager of Yankee Landing Fish Camp on Lochloosa Lake, near Gainesville, "The trick is not to fillet the fish like bass, but to take the top section of meat near the backbone. Cut from the top down to the rib cage and back to the dorsal fin. Lift this section out and you have a boneless strip of meat that is as sweet as any fish that swims in the water. It will take 12 to 15 fish to feed a family of four."



JONATHAN ALVERSON

Leonard Owen with his 4 1/4 -pound fish.

The tournament was the brainchild of Win Boggs, along with help from son Wade Boggs, the star infielder of the New York Yankees. Wade is an avid fisherman and the owner of Yankee Landing. Win works closely with Game and Fresh Water Fish Commission biologist Jim Estes and has a thorough knowledge of the fish population in Lochloosa. Boggs and Estes have worked together for several years documenting the decline of the bass population and the increase in pickerels.

"Samples taken in 1995 show an increase in the pickerel population. We are now getting 80 harvestable fish (14 inches or greater) to the vegetated acre. They are now to the point of being in direct competition with largemouth bass for available forage," Estes said.

Win Boggs told of a recent ▷

experience where an angler brought a pickerel into the fish camp. The angler had caught the fish on an artificial lure and noticed that another fish was protruding from its mouth. On closer inspection he saw the pickerel had eaten a largemouth bass and still attacked the lure. According to Wade Boggs, when he purchased the camp in 1986, far more bass were caught than pickerel. But the bass die-off of 1991 caused the pickerel population to skyrocket in the vegetated areas. He wants to help lower the pickerel count to more compatible levels and help anglers learn more about the good qualities of pickerel.

"I would hope that the anglers will start utilizing the pickerel for food and removing more of them from the lake," he said. "Also, this was a good opportunity for anglers from all over north Florida to learn that Lochloosa is back as a healthy body of water. The water levels are up and the hydrilla is down and that makes for good fishing opportunities."

Rules for the tournament were simple. Fishing was restricted to Lochloosa lake and artificial or natural bait allowed. Winners' places were determined by who landed higher numbers of fish, with ties being broken by checking their total catch's weight. First place was worth $400, second place $300 and third place landed $100. Fourth through 10th places were awarded $50 each.

Like participants at most other fishing tournaments the anglers make the event interesting. They came from Jacksonville, Orange Park, Gainesville, Ocala and the small towns in north Florida. Jim Rippy and Ron Bryant of Gainesville brought a 1973 Sears 12-foot jon boat and small outboard. Unfortunately, after working on the outboard all night, it would not run. But this did not stop the pair; they paddled down wind to the south end of Lochloosa Lake, a distance of one-and-a-half miles.

"That was not the worst part," said Rippy. "We paddled back against a 15-mile-per-hour wind in 40 degree temperatures. On top of that, we didn't catch any fish, but we had a good time and look forward to the tournament next year."

Many father-and-son teams entered the tournament, but no one was having more fun than Stephen Bostick of Gainesville while fishing with his grandfather. "Fishbait", as his grandfather calls him, caught four fish and finished 10th place.

Wade Boggs, along with teammate Jimmy Keys, the ace pitcher for the Yankees, competed in the tournament and managed to land one fish. Their favorite lures for the day were spinner-baits fished in the deeper areas of the lake. Due to the tough fishing conditions, they switched to live bait in the afternoon. Fishing conditions were difficult with bright sun, winds out of the northwest at 15 miles per hour and early morning temperatures in the low 30s.

Like Boggs and Keys, most anglers used spinner-baits fished slowly over the hydrilla beds. Natural-bait anglers used live golden shiners and fished near shoreline vegetation.

Time spent on the lake was cold, but anglers returning to the fish camp could experience some of old Florida, with the conversation warm and comfortable and as important as the fishing. The favorite topic, of course, was baseball. Win Boggs is an expert on baseball and can discuss players from the 50s, or today's players with the same ease as naming popular fishing lures. Wade Boggs, with his easy, open friendliness made all participants feel important to the tournament.

The first-place winner was Bobby Bass of Lochloosa. He managed to land 17 pickerel totalling 23 pounds. All the fish were caught on live shiners fished in the hydrilla beds.

The Boggs plan another tournament next year, but maybe in warmer weather. While visiting with the anglers, it was easy to see that they look forward to the 1997 version of this toothy tournament.

Lt. Dewey A. Weaver is the public information coordinator for the Commission's Northeast Region.

Win Boggs' Pickerel Recipes

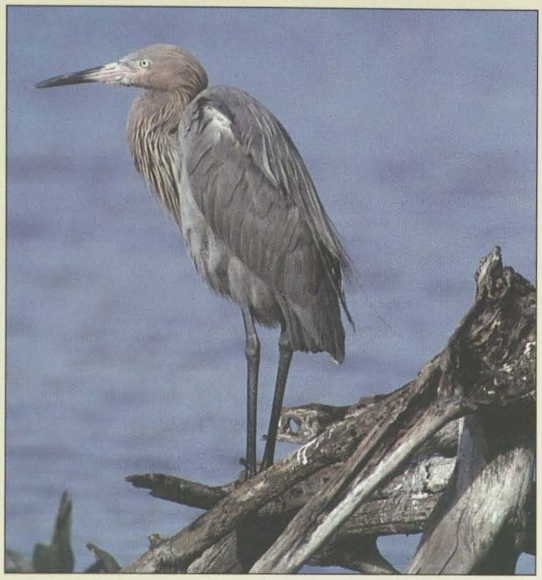
Pickerel Fish Cakes

Clean the fish and remove the skin. Cut 12-14 fish fillets into small chunks and place in a quart jar with one tablespoon each of vinegar, salt and ketchup. Seal the jar and wait for 30 days. Do not refrigerate. This will allow the bones to dissolve and will color the meat to the color of salmon. Remove the meat and mold into cakes that can be fried or used in the same manner as canned salmon.

Preparing Pickerel fillets for cooking

People who prefer to fillet their fish should use the "gashing" method. The fillet should have skin remaining to prevent cutting completely through the fillet. Cutting from the flesh side, take a sharp knife and cut the fish horizontally and vertically. Numerous cuts approximately 1/4-inch apart are necessary to cut all the bones in the fillet. These cuts should be through the flesh but not through the skin. After proper preparation the fish can be fried in hot peanut oil to a golden brown. Pickerel tastes similar to crappie (speckled perch).

Delicate BALANCE



CHARLIE HEIDECKER

Species: Reddish Egret (*egretta rufescens*)
Florida Status: Species of Special Concern
Federal Status: A candidate for listing with some evidence of vulnerability

Besides standing on roots waiting for small fish to swim into their black, flesh or dusky-colored beaks, reddish egrets use track-and-field skills to catch their supper. Jerking their necks from side to side between outstretched wings, and sometimes quickly stopping, they zigzag like drunks until they scoop up a beakful of small fish.

"They open their wings out and forward to throw a shadow on the water which allows them to see the fish better - a shadow or dark area may attract the fish," says Wayne Hoffman, a research scientist with the National Audubon Society in Tavernier. "They flash their wings and this might cause the fish to move so they can spot them easier."

With a diet consisting mainly of sheepshead minnows, crabs, grass shrimp and snails, the reddish egret darts to and fro erratically, pouncing on its prey.

Depending on the breeding stage, their plumes can vary from cinnamon to dark gray to a flat, brownish-gray during late breeding. Their wingspans average about 3½ feet.

In the early 1900s, fashionable hats with colorful egret plumage were all the rage. The hats were so popular, the reddish egret was virtually wiped out in Florida by 1910. For almost 30 years, no nesting site was known until a single nest was found in Florida Bay, south of Everglades National Park.

Today, two-thirds of the state's 400 breeding pairs are found there and in the Keys. The National Audubon Society estimates there are 2,000 breeding pairs in the United States.

The remaining colonies are scattered on the Gulf Coast which include Tampa Bay, Pine Island Sound and the Clearwater Pass. Nesting also occurs on the Arsenicker Keys in southern Biscayne Bay and Merritt Island.

Reddish egrets range along the Gulf Coast from Florida to Alabama, Mississippi, Louisiana and Texas.

Scattered sightings along the tip of Central and South America also have been reported, says Rich Paul, manager of the Tampa Bay Audubon Society.

Paul did an extensive 6-year study on the distribution, habitat trends and behavior of the reddish egret. He started looking at reddish egrets in Texas in 1974 because of an "unexplained egret population crash."

Today, Paul says, primary threats to egret populations are dredging and filling along such coastal areas as Tampa Bay. If coastal wetlands are eliminated, the reddish egret will have nowhere else to forage and nest, according to the U.S. Fish and Wildlife Service's 1991 Status Report-Egretta Rufescens (Gmelin) Reddish Egret.

Airboats and jet skis also pose threats because of their use in shallow waters where egrets forage. These recreational machines have been known to blow egrets right out of the water.

Neighboring raccoons and coyotes also prey on nesting colonies. But by far, the grackle is the major predator of egret eggs.

With increasing egret numbers in Tampa Bay, Merritt Island and the Keys, Paul is hoping that this resurgence has stabilized the population throughout the state. However, it still remains the rarest heron in North America.

Paul says it's so rare, that of the 60 species of herons in the world, the reddish egret is one of the seven that has the ability to take on two different color phases.

"They're beginning to show up in the panhandle and along the northwest Florida coast again," says Jim Cox, nongame biologist for the Florida Game and Fresh Water Fish Commission. "The frequency of sightings is an indication that they're rebounding."

– Michelle Abdul-Samaad

Feathered Terminators

By Frank H. Adams

Like an Indian rajah at a hunt, a red-tailed hawk looks down from his lordly perch while we three humans wade through a field of brambles, trying to flush prey from their hiding places. This feathered terminator constantly searches for anything that could betray a rat or rabbit, and he's ready to pounce at any moment.

Welcome to the ancient art of falconry, a sport where humans serve as both master and servant for creatures that are not domesticated, yet not completely wild. People have trained hawks and falcons to follow commands for the hunt, giving humans the image of master. But we're the ones beating the bushes to scare up game for the hawk, aren't we?

Falconry is thousands of years old, with roots running back into ancient Egypt and the Middle East. Somehow clever people in those archaic cultures managed to trap birds of prey and recruit these stunning flyers into a hunting alliance with humans.

During the Middle Ages, Crusaders and merchants brought this symbiotic relationship between person and raptor back to Europe. Since then, this sport has spread around the globe, giving practitioners a share in the lives of these beautiful birds.

Red-tailed hawks are impressive birds with broad wings which can span over 40 inches. During the winter you can often see them soaring over Florida's landscape, with their broad, rust-colored tails making them easy to identify.

While we move along, the hawk named Joe, periodically flaps from one tree and gracefully glides to another vantage point that offers a better view of the rodents that rustle through the

BRIAN L. MILLSAP

TOP PHOTO BY FRANK H. ADAMS

FRANK H. ADAMS

Above: A bird on the gauntlet: Tim Breen holds his red-tailed hawk, Joe, before turning this ravenous raptor loose to hunt.
Top photo, page 8: Soaring over a field of brambles, this red-tailed hawk seeks out its prey.
Lower photo, page 8: Aptly called a merlin, this small bird of prey can work magic for a falconer.

brambles ahead of us. When he flies, a pair of bells attached to his legs jingles lightly, letting us know where he is even if we can't see him.

If the bells betray Joe's presence to the rats, for some it's one of the last sounds they hear. But not for all.

Several times Joe flies from his perch, hovers over the tangle of thorns, and drops like a shot. And many times he comes away empty-handed, or more accurately, empty-taloned.

I lose track of how many times he dives, but twice during this hunt Joe catches large brown rats and satisfies his predatory instincts. Satisfying his appetite has to wait until later that night, though.

The reason? A hawk with a full belly might not return to its master. So falconers delay feeding time for their birds and put them through their paces in the field.

Joe belongs to Tim Breen, an avian biologist with the Game and Fresh Water Fish Commission (GFC), and an apprentice falconer. Tim has had Joe since December 1995, when he and another falconer trapped the bird off a country road west of Tallahassee.

Since then Tim has been training Joe with help from Matt Mullenix, also from the GFC. This is all part of Tim's work as a new falconer during his two years of apprenticeship under the auspices of the GFC.

"Before I got Joe, I had to take a written test from the Commission, I had to demonstrate to my sponsor that I'm really sincere about it, and that I had facilities," Tim says. Without completing all of those steps, no one can legally own a bird of prey in this country.

Once he got his bird, Tim began training him on how to work with humans. "From day one you put meat on your glove and get them to eat off it," Tim says. "Gradually you separate them from your glove and increase the distance from the glove to them and train them to jump or fly to your glove."

Later, falconers let their birds fly outside, but they are not completely free: a small line called a creance connects the hawk to its owner.

Finally, falconers put all this training to the test when they let their birds of prey fly free. "Hopefully you've trained them well enough to come back to your glove," he says. "And you reward them when they return."

One time in mid-January this year, when Tim took Joe hunting in the late afternoon near Tallahassee, it appeared all that patient work had been futile. Shortly after the hunt started, Joe caught a squirrel and ate it in a tree, rather than on the ground.

"Here it is, 6 o'clock, it's getting dark, starting to rain, and I'm watching my hawk eating this squirrel and realizing he won't have any reason to come back to me," Tim says.

Night fell and so did the rain. Tim and his fellow falconer followed the bird from tree to tree, trying to draw him back with some meat. But since the hawk had just eaten, the food had lost its allure:

"I was worried I might have to leave my bird overnight and come back in the morning, which you don't want to do because you might lose him. ▷

ROBERT S. BLOUNT

"We thought we'd have to leave him, but as we turned to leave, we heard his bells," Tim says. "We looked up in the trees, couldn't see him, looked down, and there he was, on the ground, with a full crop, wet and bedraggled."

Tim's human companion that night was Matt Mullenix, who is his sponsor in falconry. A master falconer, Matt has been immersed in this sport since 1984, when he was a boy living in Panama with his father.

His rating means he can have about any bird of prey used in North American falconry, including the peregrine falcon, which is one the raciest raptors in our skies. But these days he works with a female American kestrel named Ella.

This beautiful little bird is the smallest raptor native to North America and can often be seen perching on telephone lines peering into open fields. Its body length averages a little over 8 inches and their wings span about 21 inches. Kestrels feed mainly on insects, but also take small birds and mammals.

Matt works as a librarian for the GFC's bureau of nongame wildlife and takes his falcon to work with him, so he can closely monitor her weight and general health.

"Her best weight is 105 grams. If she hits 90 grams, that's dangerous. But if she hits 115 grams I might not be able to get her back if I let her go," Matt says.

"There was a time in her training, when she was at 109 grams," Matt says. "She came to me two or three times on a line. I let her go with a free flight and she took off. I thought I might lose her. But I swung a lure around with a piece of meat on it and she came back."

Matt considers starlings and small sparrows the perfect prey for his kestrel, since she can hit those, but can't carry them away to eat. Matt collects her prey during the hunt, then feeds her later. Any excess goes in the freezer as a reserve, a luxury no bird in the wild enjoys.

An interesting facet of falconry Matt practices is that he ultimately releases all the migratory birds of prey he captures. "I enjoy them while I have them. I let them go where we trap them or where we hunted them and wish them well."

Brian Millsap is another GFC biologist who hunts in this most natural manner, using a migratory falcon called a merlin. Merlins' bodies generally run about 12-inches long while their wingspans reach 23 inches.

These are also migratory birds, ranging into northern Alaska in the summer and south into South America and Florida during winter. They can take mourning doves and snipes, but Brian says he flies his bird mainly on starlings and sparrows.

Brian also keeps his falcon, named Gypsy, in his office with him to keep her acclimated to humans. Without that personal contact, Gypsy's wild instincts could reassert themselves over the clever conditioning that allows Brian to hunt with her.

On her perch in Brian's office, Gypsy constantly looks around, even over her shoulder. Brian says her vigilance is due to the fact that merlins, like modern business professionals, are very apt to become prey for larger predators. Except in this case Gypsy could end up being lunch, instead of merely standing in a lunch line.

"Cooper's hawks, red-tailed hawks, and northern harriers can ambush her. All those have tried," Brian says. "But she knows I'm a safety net. If she's being chased by another hawk she can come to me for protection."

Brian tries to fly Gypsy four times per week, to keep her in top physical condition, and because he enjoys seeing this pretty bird soaring through the sky.

While Brian and I talk, the work day draws to a close for humans, at least. Gypsy begins fidgeting on her perch, calls out several times and flaps her wings.

It's as though she knows what time of day it is, too. Her work day is about to begin, and she's ready to fly.

Frank H. Adams is associate editor of FLORIDA WILDLIFE magazine.

June 8-9
Free Fishing Weekend in Florida

By Mark A. Trainor

Fishing is getting closer to home. It used to be that you had to drive miles to get to your favorite fishing spot. Not any more. The Florida Game and Fresh Water Fish Commission (GFC) is providing fishing opportunities right in your back yard.

The GFC is taking an active role in creating fishing opportunities for urbanites in many areas of Florida. It is ideal that many lakes and ponds abound within a short distance of Florida's larger urban areas. Although the fishing potential of these ponds has been largely ignored by most people, the GFC is now aggresively promoting fishing in these waters.

Working with local parks and recreation departments and volunteer groups, the GFC's Urban Pond Projects have provided people a place to go fishing that's closer to home. Residents in Jacksonville, Orlando, Tampa-St. Petersburg and West Palm Beach-Ft. Lauderdale-Miami now have well-stocked ponds within convenient distance from their homes.

These urban ponds have been maintained by stocking channel catfish and sunshine bass from GFC hatcheries. Fish attractors and feeders also have been placed in ponds to entice fish to areas that are easily accessible to anglers. Some areas also have been equipped with docks, piers and boat ramps that are accessible to handicapped persons.

Parents who are looking for a healthy, fun, outdoor experience for their children are encouraged to observe National Fishing Week and Free Fishing Weekend by participating in a GFC-sponsored activity in an urban pond nearby.

During National Fishing Week (NFW) June 3-9, planned GFC events and the free fishing weekend are a good time to introduce kids to fishing. The GFC has designated June 8 and 9 as Free Fishing Weekend in Florida. During this time, anyone, including non-residents, can sport fish in any public freshwater lake or river without a fishing license.

For more information on fishing activities in your area during NFW, contact the nearest GFC regional office, listed on the inside front cover of this magazine.

Mark A. Trainor is a public information specialist in the Commission's Tallahassee office.

JOHN DEAN

Hurricane Opal's Impact on Wildlife

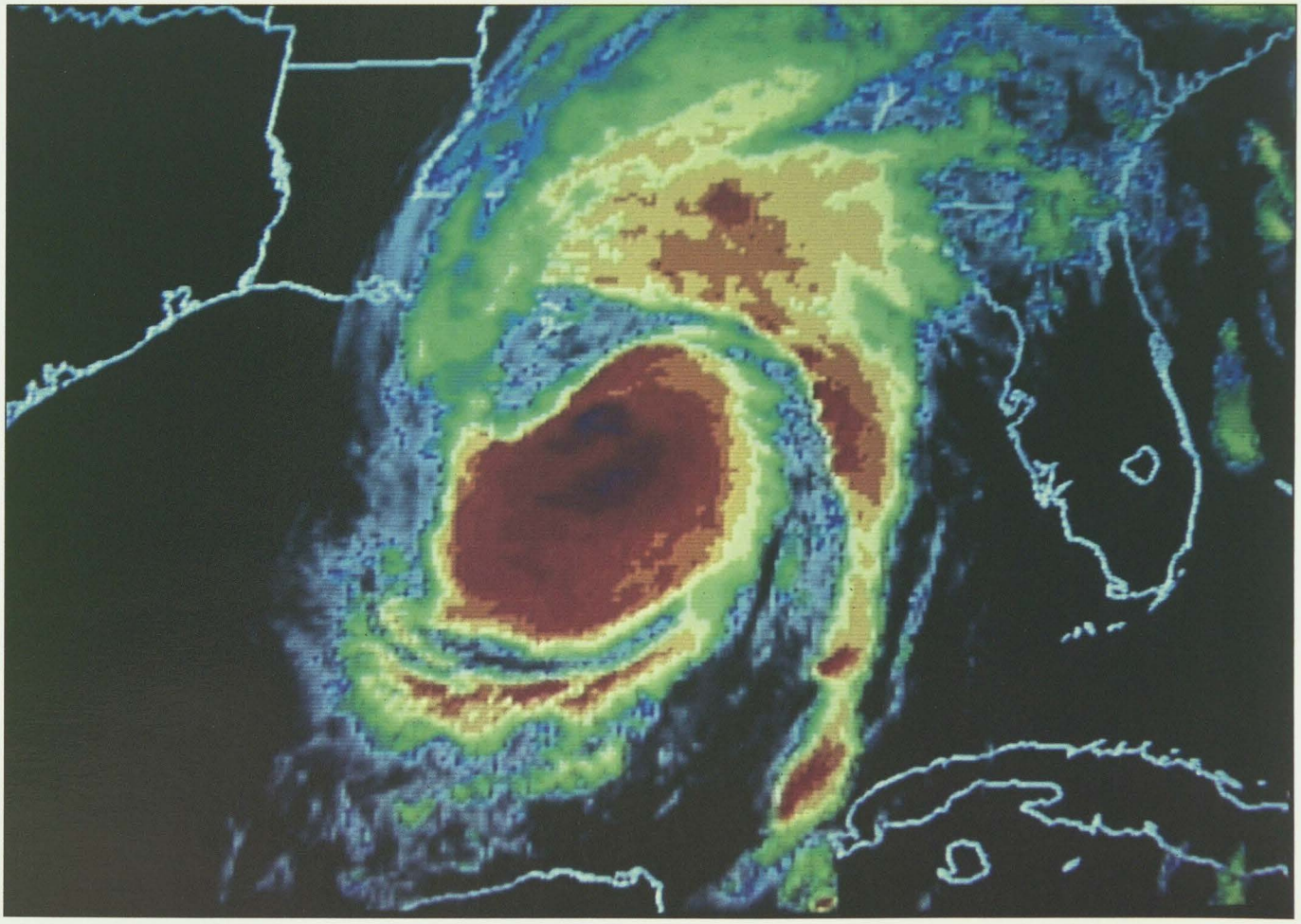
Text and Photographs by Lt. Stan Kirkland

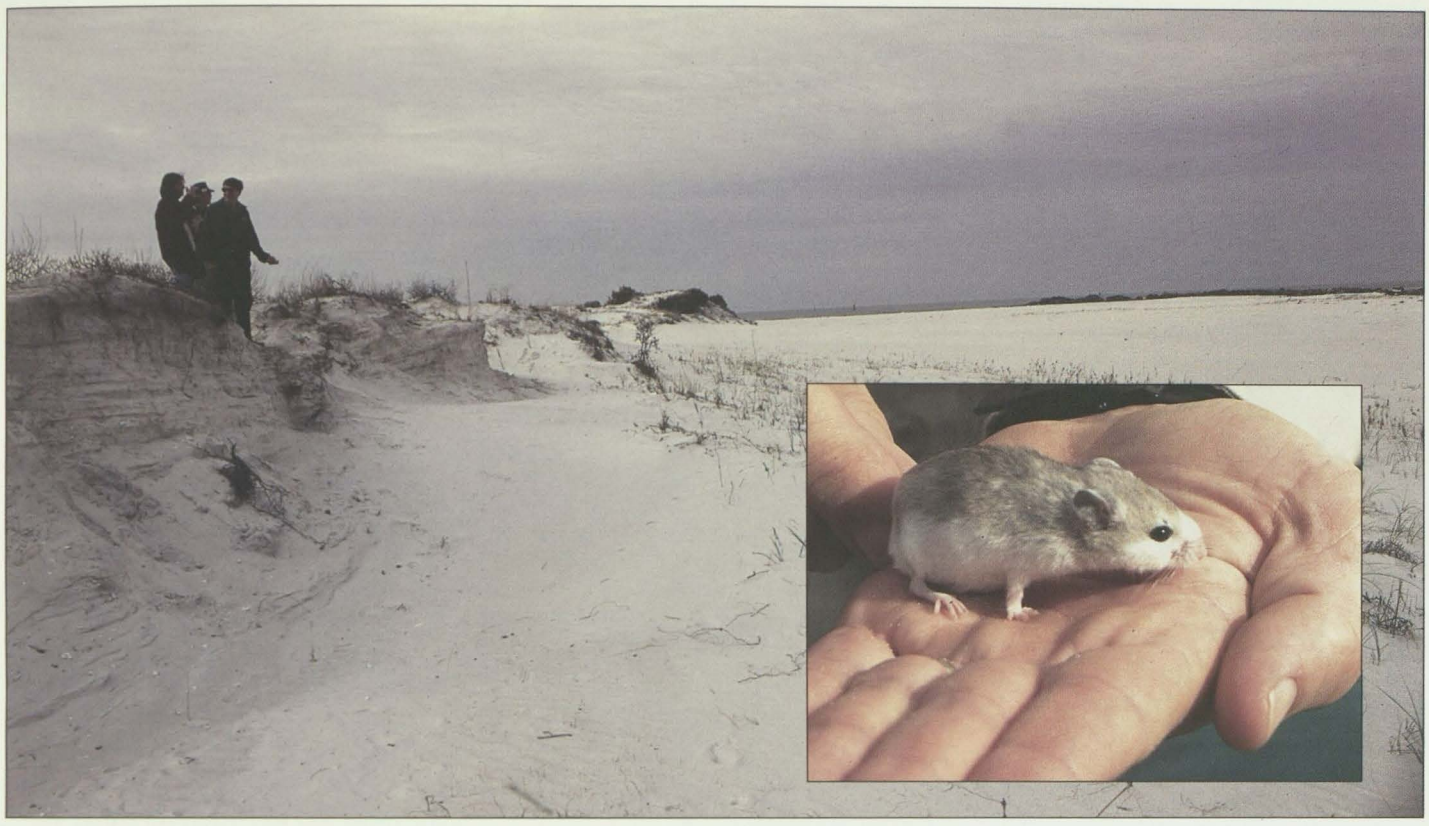
In the predawn hours of Oct. 3, 1995, several small beach mice scurried among the sand dunes of Shell Island in Bay County, feeding on sea oats and other small seeds. A gray fox on the prowl smelled where one of the tiny mice had passed and paused, then moved on. As the sun began to rise, a herd of white-tailed deer fed through the same area.

Less than 36 hours later these and other creatures were swept to their deaths in a raging storm weather forecasters dubbed Hurricane Opal.

The Category 3 storm hit the Gulf Coast in the early evening hours of Oct. 4 with sustained winds of 127 mph, and gusts in Okaloosa County measured at 144 mph. Opal brought with her heavy rains and a pounding storm surge that was 15- to 18-feet above normal along the Pensacola Beach and Navarre area, 10- to 15-feet along the Bay-Walton County coast and 6- to 8-feet in Franklin County.

The massive storm claimed only one human life in Florida before heading north into Alabama, Georgia and up the East Coast, but its financial mark on the Sunshine State was enormous. Damage estimates across the Panhandle have exceeded $3 billion.





Opal's storm surge cut away Shell Island's dunes.
(Inset) Some estimate that 75 percent of the Choctawhatchee beach mouse population was lost. Shell Island is one of this species' three known ranges.
(Page 12) Infrared satellite image of Hurricane Opal prior to striking land Oct. 4.

At least 1,065 single-family houses and multi-unit buildings such as motels were destroyed along the 120-mile area from Pensacola to St. Joe Beach, and tens of thousands of homes and businesses damaged. More than 8,000 homes were damaged in Bay County alone.

Damage to state and federal parks and recreation areas was equally disastrous. Areas like Gulf Islands National Seashore, Henderson Beach State Recreation Area, Grayton Beach State Recreation Area, St. Andrews State Recreation Area, St. Joseph Peninsula State Park and St. George Island State Park all received substantial damage.

In some places such as Gulf Islands National Seashore near Pensacola Beach and St. George Island State Park in Franklin County, roads were washed away, boardwalks and buildings obliterated. Repairs may not be completed until 1997.

Five subspecies of endangered beach mice in the Panhandle also took a beating from the storm. These tiny rodents lived among the more isolated sand dunes on the coast and their small piece of the world was pulverized by the storm surge. In many places where undulating towering dunes once existed, only flat, sandy beaches were left after the hurricane.

"Prior to Hurricane Opal we estimated there were roughly 300 Perdido Key beach mice but now we don't know how many remain. We lost about half the habitat in the storm. Certainly there are mice but we don't know how many," said Dr. Jeff Gore, a nongame wildlife biologist with the Game and Fresh Water Fish Commission who has monitored beach mice for several years.

Damage to the dune system and habitat of the Santa Rosa Island beach mouse, which lived among the dunes from Eglin Air Force Base property on Okaloosa Island, over to Pensacola Beach and Fort Pickens, was even more devastating. Along this long expanse, entire sand dunes disappeared and Gore estimated that 75 percent of the Santa Rosa beach mouse habitat was wiped out.

The remaining mouse population is fragmented in isolated pockets, leaving them vulnerable to predators, such as owls, said Bruce Hagedorn, endangered species biologist for Eglin Air Force Base. To improve the odds for the mice, he and others at Eglin pitched in to lend the mice a hand.

"We decided to link mouse habitat where it existed by using pine limbs and uprooted plants like dune rosemary to provide them shelter and cover," Hagedorn said. "With the aid of our volunteers we also took plows and covered the exposed roots or rhizomes of sea oats to begin the process of dune recovery.

"Hopefully, they'll hold and grow. Already, a professor from Louisiana State University has taken a look and was amazed at the regenerative pace. In one place the sand has built up a foot since the storm."

The hurricane destroyed marine as ▷

Blackwater River State Forest damage from Opal.

well as land animals. Hagedorn said 18 late-hatching, threatened Atlantic loggerhead and endangered Atlantic green sea turtle nests on Eglin beaches, and whatever young hatchlings that might have resulted, were also lost. The adult turtles were gone long before the storm, but hopefully will return to nest this summer.

Opal's category 3 winds also took their toll on forests in both Eglin and nearby Blackwater River State Forest. The storm's massive winds felled tens-of-thousands of 60- to 80-foot-tall longleaf and slash pines, many in prime feeding areas of the endangered red-cockaded woodpecker.

Surprisingly though, relatively few of the excavated cavity trees the woodpeckers use blew down or were snapped off at the cavity sites. On Eglin, Hagedorn said they identified only 96 red-cockaded woodpecker cavity trees that were lost out of a total of 816.

And of the 96, only 13 were thought to be "active", or in use at the time of the storm. He said the losses should have a minimal impact on the base's woodpecker population.

Blackwater River State Forest stretches over much of Santa Rosa and Okaloosa counties, but it was on the Okaloosa County side where Opal's eye passed and the majority of trees were lost. Fortunately Blackwater lost only 13 cavity trees out of a total of 231, said Tom Arrington, Division of Forestry Ecology Unit Supervisor.

"We were glad we didn't lose any more cavity trees but it remains to be seen what effects the storm had on our birds because there are several areas where the cavity trees were left standing. But most of the trees where the woodpeckers foraged each day were toppled," he said.

When cleanup began in Panama City, residents discovered two dazed deer on Beach Drive and found others nearby which had been killed. One of those was a big 8-point buck found floating near the shoreline.

Biologists knew the fate of lesser creatures on Shell Island wasn't good. John Bente, an environmental specialist for the Department of Environmental Protection said approximately 90 percent of Shell Island was denuded by the storm.

Shell Island, which is part of St. Andrews State Recreation Area, Grayton Beach State Recreation Area and state-owned Topsail Hill in Walton County, represent the last foothold of the Choctawhatchee beach mouse. Estimates vary but Bente and others estimate 75 percent of the mouse's habitat on the three areas was lost.

On nearby Tyndall Air Force Base and St. Joseph Peninsula, the St. Andrews beach mouse was equally affected. Steve Shea, a wildlife biologist on Tyndall, said following the storm work crews put up snow fences on Crooked Island to aid the process of dune recovery. He said Hurricane Erin, which struck on Aug. 3, had destroyed 30 loggerhead turtle nests on Tyndall beaches and Opal claimed 10 more.

Although people initially feared that the 12 active bald eagle nests scattered over the Panhandle west of the Apalachicola River fell prey to the storm, recent aerial surveys show that all the nests survived. Gore said the only nests that fell were old abandoned nests.

If there was a bright spot for wildlife, Opal probably benefited colonial nesting birds, like least terns and black skimmers. Those species like flat, sandy beaches and their preferred areas were greatly increased. When they return for nesting this spring they'll find their areas rearranged but should adapt nicely.

Due to its geographical location Florida has been hit many times by major hurricanes over the last several centuries. And it'll no doubt be hit again. Wildlife biologists say species like beach mice have an amazing resiliency and should rebound, but their existence is precarious, especially considering they're left in a few isolated pockets as a result of development. We have to hope another major hurricane doesn't strike the Gulf Coast anytime soon or we may well watch the beach mouse go the way of the passenger pigeon.

Lt. Stan Kirkland is the public information coordinator for GFC's Northwest Region.

BOOK REVIEWS

By Susan Cerulean

Illumination in the Flatwoods: A Season with the Wild Turkey

Joe Hutto, Lyons and Burford, 1995

When naturalist and wildlife artist Joe Hutto assumes responsibility for two dozen orphaned wild turkey eggs, he incubates them, intending to raise the hatchlings to adulthood near his home in the remote Florida flatwoods.

In this journal, the reader segues with Hutto between minute observations of the young turkeys and the humid, bug-infested and gorgeous piney woods; technical updates on the growing turkeys' plumage; Hutto's unabashed adoration and parental concern for the birds' welfare; and some profound philosophizing about the nature of consciousness, both human and turkey.

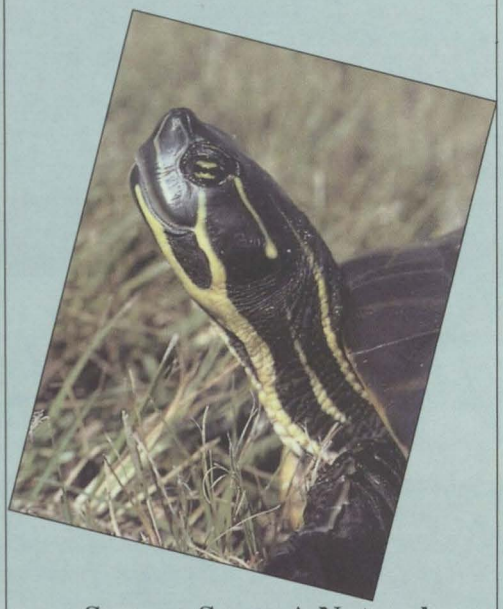
Hutto doesn't lose sight of humor, though, even under the worst of conditions:

"I feel a little like an anthropologist, who, after attempting to be an impartial observer of an exotic culture, finds himself instead becoming acculturated and confused about his own social identity. I haven't started eating grasshoppers yet, but the smooth green ones, I notice, are beginning to look very attractive."

Reading this book takes patience. It moves in real time, a metaphor for the living that Hutto did with his birds. If you can slow yourself down, you will be refreshed by privileged glimpses into the lives of foxes, crows and a parade of big-bodied rattlesnakes.

"Wild turkeys exist on a vast continuum like continents and mountain ranges," writes Hutto, "but only in this moment like the wind on your face. And, as any turkey hunter knows, they exist only as a probability, a tendency to occur in a certain place at a certain time...A wild turkey suddenly is there like a gnat in your eye or he is an apparition that gives you occasion to doubt your senses. In either case, he can be very hard to get to know."

By accompanying Hutto on his thoughtful guardianship of 14 wild turkeys, a careful reader will come to know something of not only the bird, but the place on the planet that grows them.



Swamp Song: A Natural History of Florida's Swamps

Ron Larson, University Press of Florida, 1995

Swamps are some of Florida's most definitive, yet unappreciated, landscapes. This extensively illustrated book is a helpful companion for the intermediate-level reader wanting to understand and explore them. Author Ron Larson, a biologist with the U.S. Fish and Wildlife Service, travelled widely in Florida for five years, and in this volume offers samples of his favorite swamp treks, and an introduction to the plants and animals that live there.

He draws liberally from the writings of many of the state's early naturalists, including Audubon, Bartram and others, and always concludes tantalizingly short site descriptions with follow-up resources. *Swamp Song* will be a helpful addition to the field guides of almost any Floridian.

Watching Wildlife

Mark Damian Duda, Falcon Press, 1995

For the last 10 years Mark Duda has insisted to anyone who would listen that the "sport" of wildlife viewing was about to explode. He was proved correct. During the past decade, the number of Americans who took trips for the specific purpose of wildlife watching increased by an astonishing 63 percent.

In *Watching Wildlife*, his second book, Duda draws irresistible word pictures of some of North America's deluxe wildlife viewing opportunities, from the gray whale migration in southern California to wintering bald eagles on the Skagit River in Washington state. But hopefully, before eager travelers pack their binoculars, they will hear the book's major message: with the privilege of getting close to wild animals comes the responsibility to observe them without interfering with their normal activities, such as feeding, resting and mating.

Duda lays out the "golden rules of wildlife watching," including a compelling set of reasons not to feed wildlife. Since Duda lived and worked in Florida for four years, a good number of his anecdotes are drawn from the Sunshine State. However, if the book has a weakness, it is its necessarily general nature, covering as it does the whole of North America, with an emphasis on the "charismatic megafauna."

Susan Cerulean is the Commission's Watchable Wildlife Coordinator.

wildlife artist Linda Thompson

By Michelle Abdul-Samaad

When she refused to stop drawing pictures of horses on her classwork, Linda Thompson's first grade teacher would make her go stand in the corner. In high school she was awarded, not reprimanded, for the drawings and paintings she created. And she didn't need formal art training to know that wildlife's landscape had much to offer artistically.

Thompson came to the Gulf coast from Ohio nearly 25 years ago leaving behind the commercial art field to concentrate on capturing nature on canvas. The "harshness" of the Florida pine, the unique ecology system and vitality of marine animals served as her backdrop.

"Art can bring nature's images to life and their struggles to our hearts."

One only has to look at the loggerhead turtles swimming to the surface to munch on a plastic bag resembling a floating jellyfish to wonder how vulnerable they appear to the indifferent eye. Ironically, the name of the print "If Only They Could Read", sums up the mood.

"Art can bring nature's images to life and their struggles to our hearts," says Thompson. "My goal is to capture a scene, tell a story, then leave you with the feeling that you've been there, and will come back again."

The playfulness of two panther cubs or the graceful manatees swimming to warmer waters, Thompson strives to relay the vitality and accuracy of her surroundings. She is currently

working on a jaguar painting, trying to capture the exact essence of light filtering through the tree branches upon which it nestles.

Thompson said she uses different references for her drawings because accurate details are vital. "Artists will notice if you have the wrong species of plant or rock for that particular area," she warns.

Among her accolades, she won the 1992 Florida Wildlife Magazine cover art contest with one of her manatee paintings. Her painting of a kestrel family won the Florida Wildlife Magazine cover art contest in 1995.

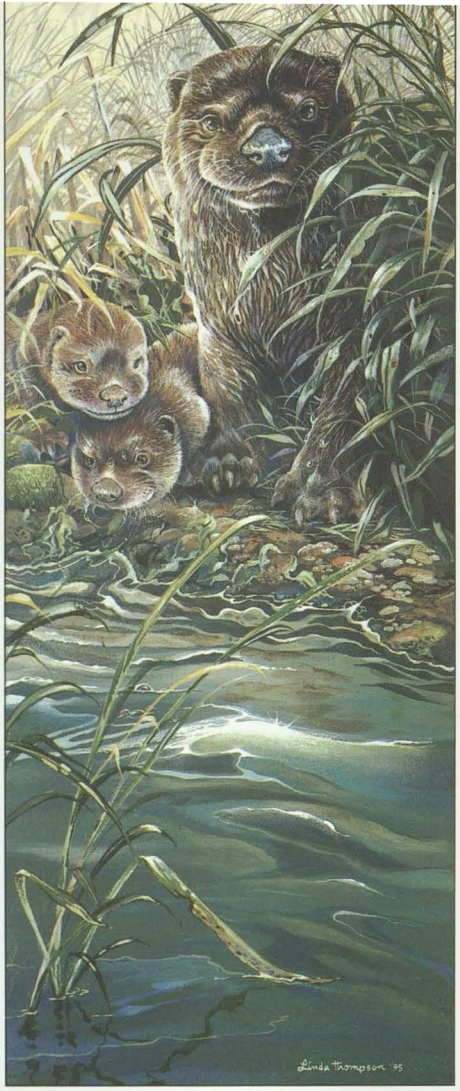
To the teenagers she visits at area schools in Sarasota, she hopes to bring a greater respect of nature and a reassurance that they can make a living being artists.

"Realism is often dramatic – like the propeller scars on a manatee's back or the power and independent aura of a cougar," she pointed out. "Making that connection is what I paint."

For further information: Contact Linda Thompson at Artistic Expressions, 4300 Mink Road, Sarasota, FL 34235.

Phone (941)359-2921 or FAX (941)377-1409 ▷

"Realism is often dramatic – like the propeller scars on a manatee's back or the power and independent aura of a cougar. Making that connection is what I paint."



Page 16: PLAYFUL PASSAGE – Dolphins
Right: GOIN' FISHIN – River Otters
Below: SAFE – Bobcat

FLORIDA PANTHERS (two pieces of a triptych)

FAMILIES MATTER – Manatees

Image size 11" X 17"

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Reelin' in the Gar

By Allen W. Hubbard

Suddenly, the line started jumping from the unlocked reel in short jerks. Forgotten was the peaceful beauty of the Apalachicola River. The reel demanded full attention.

The quick jerks eased into a steady deliberate run. We knew that ole "Mr. Teeth," a long-nosed gar, had the bait and was heading up river.

Al Borland confidently picked up the rod and felt the tension of the running fish. Although I kept my mouth shut, my entire being was screaming, "Hit him Al! Hit him!"

The line movement started slowing and then stopped. "He is swallowing it," Al quietly stated. He lowered the rod tip and with surprising strength and quickness, swung the rod straight back to set the hook.

Nothing! The line hung limp in the wind. This gar, like the eight before him, had dropped the bait.

The source of our frustration was the long-nosed gar. Gar, like sturgeon, have survived for eons. They inhabit lakes, rivers and ponds throughout the United States. Their vascularized gas bladder is enriched with blood vessels which collect and hold extra oxygen. This allows gar to live in waters of low oxygen content.

This fishing trip had been initiated in May at a fish fry. I had simply commented to Al, "I have caught some gar, but I have never fished for gar."

"Can't have that," Al firmly stated. He set the trip up for the middle of June.

We loaded his boat with fishing equipment and launched out into the Apalachicola River delta system early in the afternoon. Al had pointed out that our first task was to catch the bait.

"Bream 3- to 6-inches long, have worked best for me," Al instructed. We pulled to a bend, anchored up and dug out the light equipment. We loaded up with worms and in no time had a live well full of bream that Al judged would be "just right."

As we reached the "honey hole" and anchored, Al pointed out, "I caught my biggest gar in this river right here last week. A 45-inch, 24-pounder."

He dug into the live well and fished out a 4-inch bream. He opened his pocketknife and started scaling the fish. "Gar take the baits better without scales," Al informed me as he worked. He then slit the bream from the anal fin to the gills insuring some of the intestines were exposed.

Gar, like sturgeon, have survived for eons. They inhabit lakes, rivers and ponds throughout the United States.

A 7-foot bait-casting rod was rigged with 25-pound-test line on a Zebco 2030 reel. A 3/8-ounce egg sinker was placed in front of a split shot located 16 inches about a number 2 kayle-style, live-bait hook tied directly to the end of the line. Al inserted the hook into the bait about an inch from the tail, and cast into the river.

Eight runs later, we still had not set the hook in a gar. Every attempt resulted in the gar dropping the bait. Because of the runs, we knew we were into fish. But it was obvious they were not hungry, just playful.

We studied the way the baits were hooked. We decided that by running the hook on through the tail and back into the bait, we could bring out the point just under the chin. It was obvious from the way our baits had been chewed, the gar were picking up the bream head-first.

We tried the new rig and in a few minutes we got another run. This time we only let him run for about 15-seconds before the reel was locked.

A successful hook-up! After a 10-minute battle, ole "Mr. Teeth" was brought to the side of the boat. Al put on a kevlar fish-cleaning glove, reached into the water and grabbed the gar by his handle-like snout. When he swung the fish into the boat, I could hear the sharp teeth catching in the mesh of the glove. "It doesn't take but one time to learn that you need gloves like this if

you're going to use the snout as a handle."

The fish was hooked in the snout and not in the throat. Like the other fish that had taken our baits, this one had just been playing with it. The gar had made no attempt to swallow the bait.

This gar weighed over 8-pounds, and within 15-minutes we landed another 8-pounder. He, too, was hooked in the snout. Al slowly nodded his head and stated, "I think we've solved the problem."

Back at the fish-cleaning table the work began. But the usual electric fillet knife and fish scaler would not be the tools of choice. Al dug into the tool box and pulled out a large butcher knife, claw hammer and tin snips.

He cut along the back of the head with the butcher knife and claw hammer. Next, Al used the tin snips to continue cutting the armor down the center of the back from the head to the tail. Vertical cuts were then made at each end and on each side of the long cut, down to the belly.

Al selected a small fillet knife and started working the armor away from the firm, white "backstrap" that ran along the spine of the fish. He was then able to lay the tough skin on both sides of the gar flat down on the table.

He also used the fillet knife to remove the backstrap. When he finished and laid it out on the cleaning board, it was a 3-inch-diameter hunk of firm, white meat about 16-inches long.

He used the back of the small knife to scrape the sides of the fillets which had been next to the skin. This removed the blood line residue and most of the "fishy" taste. The fillets were then cut into 3/4-inch steaks.

The final test was at hand. The steaks were sprinkled with salt, dipped into buttermilk, rolled in flour and fried until they were golden brown. Al says, "They are more like scallops or lobster than fish!"

I have caught a few gar in the past. I have been awed by the number of teeth and the strength of their hides. I have watched a countless number of gar roll on the surface of our rivers. And what is worst of all, I have never understood what I was missing.

I don't need to sell it. You just try it. Hang a big gar on your bass rod. You'll be hooked much easier than he will be!

Allen W. Hubbard is an outdoor writer for the ***Panama City News-Herald.***

peggy perkerson

The Hunter's Stake in Conservation

By Frank H. Adams

Mention the term conservationist to most people in this country and visions of hunters bedecked in the latest from camouflage boutiques don't spring to mind. A more common image of conservationists here is one of folk sporting a look more in tune with L.L. Bean.

Many people think of hunters as a bunch of bubbas with the environmental sensitivity of Archie Bunker who wreak havoc with the natural world while they hunt down Bambi.

But it might be worthwhile to consider what hunters have in common with environmentalists in organizations like the Sierra Club and the Audubon Society. In an era of increasing pressure on the environment, nature can use all the help it can get.

Hunters have a stake in conservation in this country, and have been backing that up with actions for over 100 years. That movement grew in reaction to the short-sighted squandering of natural resources by commercial hunters.

During the 19th century market hunters nearly blasted our bison, plume-bearing birds and other North American animals into oblivion. And they set the stage for the extinction of the passenger pigeon.

But depredations by for-profit hunters and a deep love of the outdoors spurred naturalist and hunter George Bird Grinnell to fight against hunting game birds in the spring, or shooting nongame birds. This took place around the turn of the century.

In 1901 he published a book called, "American Duck Shooting," which included the first account of waterfowl being poisoned because they ingested lead shot. In the same book he urged states to create seasons and bag limits in areas where commercial hunters want only wasted game.

During the same period, hunting clubs in Maryland became incensed over the nighttime massacre of roosting ducks and geese by market hunters in their area, and successfully worked to ban it. That was a great leap for conservation because the federal government didn't get involved in this fight in a major way until over three decades later.

The conservation movement also got a major boost from an avid hunter named Theodore Roosevelt, our country's 26th president, who held that office from 1901 until 1909, and established five national parks during his presidency.

The conservation missions of Roosevelt and other hunters grew out of people looking beyond the short-term gratification of the hunt. In order to keep doing what they enjoyed, they realized they had to limit their takes and preserve habitat.

"Hunters want some recreational opportunities. They just harvest a small percent of the waterfowl population. If they don't put their money out, there aren't going to be any hunting seasons," said Doug Williams, the regional director of Ducks Unlimited for north Florida and south Georgia.

Ducks Unlimited is a hunting and conservation organization founded in 1937 to raise money to protect waterfowl habitat. Parts of America had endured years of withering drought and soil erosion, and waterfowl hunters worked to ensure they would be able to hunt their favorite game.

Since then that organization has conserved over 7 million acres of waterfowl habitat throughout the United States, Canada and Mexico. Preserving habitat benefits not only game species, but serves whole communities of plants and animals.

Their work has helped 18 of North America's threatened and endangered species, including peregrine falcons, whooping cranes, bald eagles, blunt-nosed leopard lizards, salt marsh

harvest mice and San Joaquin kit foxes.

On the state level Ducks Unlimited has preserved over 9,000 acres of prime waterfowl habitat since 1985, to the tune of $750,000. Their most recent project in Florida was to work with the Game and Fresh Water Fish Commission (GFC) and the St. Johns River Water Management District to create a 3,000-acre wetland near Sebastian.

There are other hunting and conservation groups such as Quails Unlimited and the National Wild Turkey Federation, as well as state ones like the Florida Wildlife Federation, which use part of their members' fees to support conservation.

Beyond voluntary environmental preservation, all hunters support conservation through excise taxes on hunting supplies like guns and ammunition. This is under the federal Pittman-Robertson Program, which was launched in 1937 to gather money to protect wildlife and invaluable habitat.

Since 1937 this program has raised over $2 billion for wildlife restoration in America. It may seem a bit ironic to some that the purchase of weapons to kill game animals helps keep them and other wildlife alive, but that's the nature of the beast.

Funds from the Pittman-Robertson Program have gone to buy and enhance habitat, manage vegetation for food and cover, improve water holes and study wildlife and the intricacies of how they interact with their environment. Since its inception, this program has helped add over 50 million acres to state wildlife management programs through cooperative agreements.

About 4.2 million acres of that land is in Florida, comprising the 74 wildlife management areas overseen by the GFC.

One of them is the J.W. Corbett Wildlife Management Area in Palm Beach County. Besides providing a place for hunters to pursue game animals, this area has a good population of endangered red-cockaded woodpeckers and threatened bald eagles.

CHARLIE HEIDECKER

Hunters make other contributions to conservation by purchasing hunting licenses and various game stamps, including federal waterfowl hunting stamps.

"Money from federal duck stamps goes to the U.S. Fish and Wildlife Service and is used to purchase land for wildlife refuges," said Frank Smith, the GFC's chief of wildlife land management.

Besides allowing hunters to hunt legally, federal waterfowl stamps serve as a pass to all of the country's national wildlife refuges, and having one keeps people - hunters and non-hunters – from having to pay the admission price each time they go into one. Money from state hunting licenses and waterfowl stamps goes into the State Game Trust Fund, which is where the GFC gets its revenues for wildlife research, education, law enforcement and land acquisition.

"The biggest threat to wildlife is habitat loss in Florida. That's why so much emphasis is placed on habitat acquisition," Smith said.

Why do hunters have a stake in conservation? "It's enlightened self-interest," Smith said. "I think most hunters have sense enough to know a good, healthy environment is necessary for the animals they like to hunt."

But if current trends are any predictor of future events, the hunter's role in conservation may recede. In Florida the percent of hunters out of the general population is decreasing. Fewer hunters means fewer hunting licenses and stamps will be sold, which could translate into less money for habitat preservation and wildlife research.

"They'll perhaps not be playing as important a role in conservation as they have in the past," Smith said. "I think the challenge in the future will be to get financial support for conservation from non-hunters."

Frank H. Adams is the associate editor of FLORIDA WILDLIFE magazine.

North Florida's Hidden Bassin' Lakes

By Carolee Boyles-Sprenkel

Though well-known for their bluegill and redear sunfish, these small lakes give anglers some remarkable bass catches.

DOUG STAMM

Mention bass fishing in north Florida, and the "big" names come up: Lakes Seminole, Talquin and Jackson and the Apalachicola River. But tucked away in the western Panhandle are several small lakes most anglers don't think about. The bassing on these little pools can be as good as that on the well-known lakes.

Most big-water bass anglers wouldn't give these little lakes in north Florida's hinterlands a second look. Though well-known for their bluegill and redear sunfish, these small lakes give anglers some remarkable bass catches.

The secret is the management provided by the Florida Game and Fresh Water Fish Commission. John Crew, a fisheries biologist with the Commission's DeFuniak Springs Fisheries Field Office, says the program was conceived to improve the panfishing.

"Panfish are the primary target fish for anglers here in the Panhandle," Crew says. "That doesn't mean there aren't a number of serious bass anglers

STAN KIRKLAND

Matt and Michael Seal fishing on Hurricane Lake in Okaloosa County.

out here too, but if you had to select between the two in priority, the panfish would be the first target fish; bass would be the second."

On five lakes - Victor, Stone, Bear, Hurricane and Karick - Commission biologists conduct a fertilization and liming program to enhance the natural fisheries' productivity.

Dale Jones, a Commission fisheries supervisor, says the overall goal is to increase the number of good-sized sport fish for anglers. This isn't quite as simple as fertilizing a lawn.

Biologists use lime and a fertilizer formulated for fish ponds, and broadcast them over the water's surface. The lime increases the ability of microscopic aquatic plants to use the fertilizer's minerals.

Biologists must calculate application rates very carefully to avoid adding lime or fertilizer too fast to knock the lake's nutrient levels out of balance. The chemicals are added in small amounts at 3-week intervals from March to October. The key is controlling the timing and the amount of the nutrients added.

An algal bloom results, which is a rapid increase in the microscopic plant population in the water. These plants are the base of the food chain; fertilization increases the amount of plant material available for baitfish to eat.

Tom Vaughn, biological administrator for the Commission, says this differs from the type of algal bloom caused by eutrophication of lakes in urban areas. In those instances, uncontrolled nutrient loading produces massive growth of both desirable and undesirable algae.

"What we're doing is not at all like dumping tertiary-treated effluent into a system," Jones says. "This is a very controlled and researched technique. Plus, we have other management techniques we can use to help negate the eutrophication process."

Jones points out that all five of these lakes are artificial. If biologists see any kind of a problem developing in one of them, they can draw down the lake to consolidate and oxidize bottom sediments.

All five fertilized lakes have one special regulation, according to Crew. No gasoline motors are permitted because the lakes are too small and full of underwater obstructions.

The daily limit on channel catfish on all the lakes is six fish, according to Vaughn. Also, you may not drive motorized vehicles on dams, spillways or points that jut out into the lakes.

"We also have a regulation which applies to all fish management areas," Vaughn says."This allows us to shut an area down for safety purposes if we're doing a drawdown or other physical alteration of the lake."

The topography of these five lakes is typical of that found in most ones made by impounding water. According to Crew, all of them have a lot of standing and flooded timber.

"Much of it is submerged," he says. "Over the years the standing exposed timber has fallen. But there's still a lot of flooded timber to fish around."

The Lakes

Lake Victor is located in northern Holmes County, near the New Hope community. To reach it, travel north from Bonifay on State Road 79 about a ▷

mile, then take SR 177 where it branches to the left. Continue north until you reach SR 2, also known by the evocative name of Hog and Hominy Road. Turn left and go another 8 miles or so; Lake Victor is on the left. One Commission-managed public boat ramp allows access to the 130-acre lake.

Lake Stone, located in northeast Escambia County, is in many ways very similar to Lake Victor. To reach the lake, travel north from Pensacola on U.S. 29 until you pass Bluff Springs. Just a mile or so south of the Alabama line, at Century, Florida, turn left on SR 4. In about a mile and a half, you'll see Lake Stone on the left.

The other three fertilized lakes are located in the Blackwater River State Forest, within 25 minutes or so of one another.

In Santa Rosa County, Bear Lake covers 107 acres. To reach it, take SR 191 northeast from Milton. About 12 miles from town, turn right on SR 4. You can turn left to Bear Lake about two miles from that intersection.

Located in Okaloosa County, 318-acre Hurricane Lake is the largest of the five fertilized lakes. It's a hard place to find, since it's located on an unnumbered road. To get there, continue east on SR 4 past Bear Lake. Just past the turnoff to Bear Lake, a road turns left; Hurricane Lake is about five or six miles up that road, on the right.

Fifty-eight acre Karick Lake is the easternmost of the Blackwater's three little bassin' lakes. To get to Karick, which is located in Okaloosa County, take U.S. 90 west from Crestview. When SR 4 turns to the right, follow it. Stay on SR 4 until it merges with SR 189; then continue north. Karick Lake is about halfway between Cannon Town and Blackman, on the right.

Small lakes such as these can be subjected to a lot of pressure when anglers discover where they're hidden. Crew says he hopes anglers coming to these little lakes will practice good fishing ethics so they don't deplete the resource for others who follow. In other words, if you're going to fish on these lakes, handle your bass carefully and take only a reasonable number of fish to eat.

And he requests that anglers take special care not to bring aquatic vegetation such as hydrilla into these lakes. So far none has a problem with exotic weeds; the only plants present are native species. Biologists would like to keep things that way.

"Hydrilla is bad news," Vaughn says. "We're asking anglers to check their props, their trailers and their undercarriage. If you're dragging any plants, take a minute or two and take them off. You can have hydrilla on a trailer and put it in your garage. Two weeks later you can take that same plant and put it in a lake and it will grow. You're only talking about a section of hydrilla an inch long."

So if you're looking for somewhere a little different to fish for bass, and are willing to make an excursion over the back roads of the Panhandle, one of these little lakes might be just the place for you. But if you come, practice good fishing ethics, and be sure to clean the hydrilla off your boat and trailer before you get here.

A contemporary outdoorswoman, Carolee Boyles-Sprenkel is a free-lance writer who contributes hunting and fishing articles to FLORIDA WILDLIFE.

If you're looking for somewhere a little different to fish for bass, and are willing to make an excursion over the back roads of the Panhandle, one of these little lakes might be just the place for you.

STAN KIRKLAND

Aerial view of Hurricane Lake, the largest of the five fertilized lakes.

LOOKING FOR OSCAR

By Carolee Boyles-Sprenkel
Photographs by Paul Shafland

The early-morning breeze was cool despite the bright sun. I shivered a little inside my jacket as we loaded the canoe onto the pickup truck. An early cold front had passed through south Florida two days before, and I wondered how it would affect the fishing.

I'd come down to Big Cypress Hunting Adventures on the Seminole Indian Reservation with several friends to do some hunting. Then the natural resources director, Jimmie McDaniel, mentioned that the oscar fishing had been excellent the week before. Since I'd never fished for oscars, my hunting partner Galen Geer and I decided to try it. We borrowed some fishing tackle and a canoe, and coaxed Jimmie into loading the canoe onto his pickup and driving us to one of the canals where we heard there should be plenty of oscars.

As soon as we reached the edge of the canal, we could see a lot of activity on the surface of the water. Every few seconds a fish would roll right on top, creating ripples of overlapping concentric rings. We couldn't tell what kind of fish they were, but if they were oscars, we were in for some interesting fishing.

Jimmie and Galen unloaded the canoe and eased it into the water. We got ourselves and all the tackle loaded into the canoe and set off.

Galen tied on a Beetle Spin and started casting it to the ripples. That put me on the wrong end of the canoe to reach the rolling fish, so I put on a little gold Rapala and cast to the lily pads on my side of the canoe, hoping to pull a good-sized oscar out from under them. Within just a minute Galen had a hit, though the fish got away.

Small oscars are popular aquarium fish, but in the wild they can grow into game fish size, some reaching over 2 pounds. Their native range extends east of South America's Andes Mountains from Venezuela to the La Plata river by Uruguay.

According to Frank Morello, a fisheries biologist in the Game and Fresh Water Fish Commission's Everglades Region, the southern Florida oscar fishery began as an illegal introduction of some aquarium fish into a Dade or Broward County canal. A little more than 25 years ago someone released them in south Florida. The vast majority of releases like this hurt native Florida species, and that is why wildlife officials try to prevent them.

"We don't know exactly how they got established," Morello says. "For 25 years the population was low, just at an idle."

Prior to the 1980s, the fish ▷

gradually expanded their range all the way into Okeechobee County. Morello says that's probably as far north as they'll get, since water temperature greatly affects their ability to reproduce and survive.

In the early 1980s anglers still caught them only infrequently. "Then in the mid-1980s," Morello says, "there was an unexplained and rapid population increase. All of a sudden, anglers started catching multiple fish, over a much broader geographic area."

In 1986, the Commission began studying the oscar fishery in south Florida's Conservation Area 2. The peak harvest biologists documented on the conservation area was 11,583 fish during their 1986 to 1987 six-month creel survey. However, cold winter temperatures, possibly combined with several other factors, reduced the catch of oscars to zero the following year.

For the next three years, biologists concentrated their study of oscars on Conservation Area 3.

"The oscar was the number one species harvested," Morello says. "During those three, six-month surveys, anglers caught 99,590 oscars. That represented 63 percent of the total fish harvest. People caught more oscars per hour than all of the bream species and crappie combined. It was also the second most popular species, right after bass. The greatest number of oscars caught during any one six-month survey was during the 1991 to 1992 survey, and that was 53,286 fish." He said many anglers who historically have fished Lake Okeechobee for crappie told interviewers they were leaving Okeechobee and going to the Everglades for oscars.

This is clearly a popular little fish. It's also an easy fish to catch. Morello says that when it's biting, it will hit almost anything.

"You can catch them almost equally well on artificial lures and cut and live bait," he says. "They'll hit about anything you want to go fishing with, as long as it's not a super-large artificial lure." He suggests everything from minnows, crickets, cut bait and worms to small bass lures.

Morello did raise one concern about oscars which south Florida anglers need to be aware of. "There's a limited consumption warning on them because of mercury," he says.

Mercury is toxic, so most adults should eat no more than one meal of oscars per week. Pregnant or nursing women and children should eat no more than one per month.

There are several easy access points to the conservation areas where oscars are most plentiful. To get into Conservation Area 2, enter through Sawgrass Recreation Camp. Go out State Road 84 from Ft. Lauderdale, and turn north on U.S. 27. Sawgrass Recreation Area is about three miles north of that intersection, on the left.

Access to Conservation Area 3 is through the Holiday Park Recreation Area. Holiday Park is just west of the intersection of U.S. 27 and Griffin Road, west of Hollywood.

Oscars may be easy to catch, but we didn't catch any the day we fished for them. Though we stayed more than an hour in the same spot, we never did have even another bump. We did get a good look at some of the fish which were disturbing the early morning calmness: they were gar.

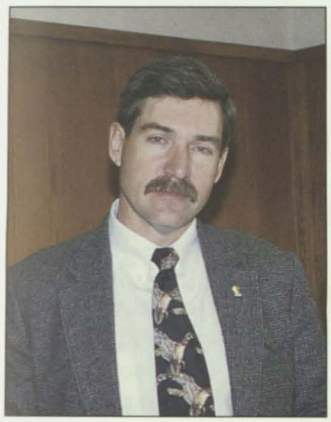
After fruitless attempts with several different lures, we eventually concluded that the cold front which had us all in jackets had cooled the fish off as well; despite all the action of the week before, they weren't going to bite that day. But I'll be back later this spring, and I'm going to try once more to catch some of south Florida's most successful unplanned aquatic residents.

A contemporary outdoorswoman, Carolee Boyles-Sprenkel is a free-lance writer who contributes hunting and fishing articles to FLORIDA WILDLIFE.

Below: Sought, found and landed, exotic oscars emblason this angler's stringer.

CONSERVATION UPDATE

Compiled by FLORIDA WILDLIFE staff



Victor J. Heller

Bill Sumner

DICK SUBLETTE

New GFC Appointment

Victor J. Heller has been named assistant executive director of the GFC. Heller was previously the assistant director for the Division of Wildlife. He first joined the GFC as a regional wildlife biologist in the Everglades Region in 1978.

Bill Sumner, appointed GFC assistant executive director in 1994, recently retired after 35 years of service to the State of Florida. Sumner joined the GFC as director of the Office of Administrative Services in 1980.

GFC Looks To New Regulations To Restore Bass Fishing

The Game and Fresh Water Fish Commission (GFC) is determined to return Florida to the days when big bass were abundant and anglers had a chance to catch that once-in-a-lifetime trophy-sized bass.

Beginning July 1, new bass fishing regulations will take effect on Lake Okeechobee, lakes Orange and Lochloosa near Gainesville, Lake Jackson near Tallahassee, seven Ocala National Forest lakes, Farm 13/Stick Marsh including the S. N. Knight Tract in Indian River County, the Eustis Muck Farm and Walker Ranch in Lake County and the south Florida area.

GFC Fisheries director Dr. Jerry Shireman said, "We're trying to restore the fish populations in these lakes to levels attained in the 1940s when there were plenty of 16-, 17- and 18-inch bass."

Shireman attributes the decline of big bass to several factors such as habitat loss, long periods of stabilized water levels, intense fishing pressure, high-tech fishing equipment and anglers who target larger fish.

If the new regulations work out as expected, Shireman said, the same type of aggressive management may be tried on other lakes. Shireman said recent heavy rainfall across the state has resulted in the highest lake levels in a decade. This high water and the effect of the new regulations have the potential to produce outstanding fishing.

Manatee Count Up

The 1996 count of the endangered manatees jumped up by nearly 25 percent from 1995's level. Early this year state wildlife officials conducted their yearly aerial count of the aquatic mammals and found 2,274, up from the previous year's total of 1,822.

This was both good news and perplexing. It is good in the sense that there are more manatees accounted for. But it is perplexing to see such a large jump in manatee deaths. In 1995 there were 201 manatees found dead. As of mid-March of this year, 133 manatees were found dead.

Keeping count of marine animals which range so freely throughout their fluid habitat is no simple task, and officials do not know how many manatees are missed in the annual count.

CHARLIE HEIDECKER

Cause of Cormorant Deaths Unknown

For the last five years, an enigmatic syndrome has been killing cormorants in the Florida Keys, leaving scientists grappling with this problem, mystified over its cause.

Environmentalists at The Wild Bird Center in Tavernier, have been treating cormorants that were terribly emaciated and anemic, which were found wandering down roads in the Keys or appearing stunned in people's yards. The birds had no visible injuries and about 90 percent of the treated birds died.

Florida's Great Escape
TORREYA STATE PARK

By Frank H. Adams

Here a person's troubles seem to melt away in the face of some of the rarest beauty in Florida.

JAMES VALENTINE

"This is one of the least-visited parks in Florida. That's why people come here. For the peace and quiet," says an officer with the Florida Department of Corrections. "Some day I'm going to bring my kids here."

The place he refers to is Torreya State Park, a natural splendor about 50 miles west of Tallahassee. It's one of the best-kept secrets in the state, drawing only about 20,000 visitors annually.

The corrections officer is overseeing a small work crew of inmates from nearby Liberty Corrections Institute, who are maintaining facilities at the park. During times of government cutbacks, any helping hand is a welcome one.

The restorative powers of nature are good for all who come here, whether free citizens or prisoners atoning for their misdeeds. Here a person's troubles seem to melt away in the face of some of the rarest beauty in Florida.

On an overcast day in late winter the atmosphere here is magical, accompanied by the sounds of nature. A crow's caw echoes through the forest, crickets chirp, choruses of frogs herald hints of spring in the air and a great blue heron croaks.

The only sounds of civilization are the distant rumblings of jets, which fade in time. This place is a great escape.

Snugly nestled in rolling hills, this park boasts bluffs which rise 150 feet over the Apalachicola River, and an impressive variety of wildlife including over 100 species of birds, 1,000 species

Torreya tree

of butterflies and moths, and endangered species such as the Florida Torreya tree.

The namesake of the park, this rare tree occurs primarily on the bluffs and ravines around the Apalachicola River, with the largest concentration occurring in the vicinity of Torreya State Park. It is a type of conifer whose nearest relative lives in California, with others occurring in China and Japan.

Why are these related trees separated by such long distances? Apparently their journey started millions of years ago, when their range was larger, and what is now North America and Asia were linked. Since then continental drift, glaciation and climate changes have created the distance between these relatives.

It wasn't until the mid 1800s when Torreyas were logged in any quantity. Resistant to rot and insects, they were useful to humans, who clear-cut native forests and replanted them with trees like slash pines.

During the 1950s the adult population of Torreyas in the park experienced a major dieback. And Torreya seedlings which survived that initial onslaught have been stunted and many have died prematurely since then. Although multiple diseases may be the ultimate cause of the tree's decimation, some scientists feel the stage for that was set by environmental changes which made Torreyas more susceptible to infection.

One scientist struggling to save these trees has found about 30 different plant pathogens living in a single Torreya. While none of these diseases is deadly by itself, some naturalists think the brew of so many disease organisms could be what's killing the trees.

The combination punch of multiple pathogens on these trees compared to uninfected ones is impressive. Instead of reaching their normal height of up to 60 feet, they average only 4 1/2-feet tall in the park these days.

Conservationists have used pesticides to fight this small army of pathogens which poses a big threat to Florida's Torreya, but so far this tree is still in trouble.

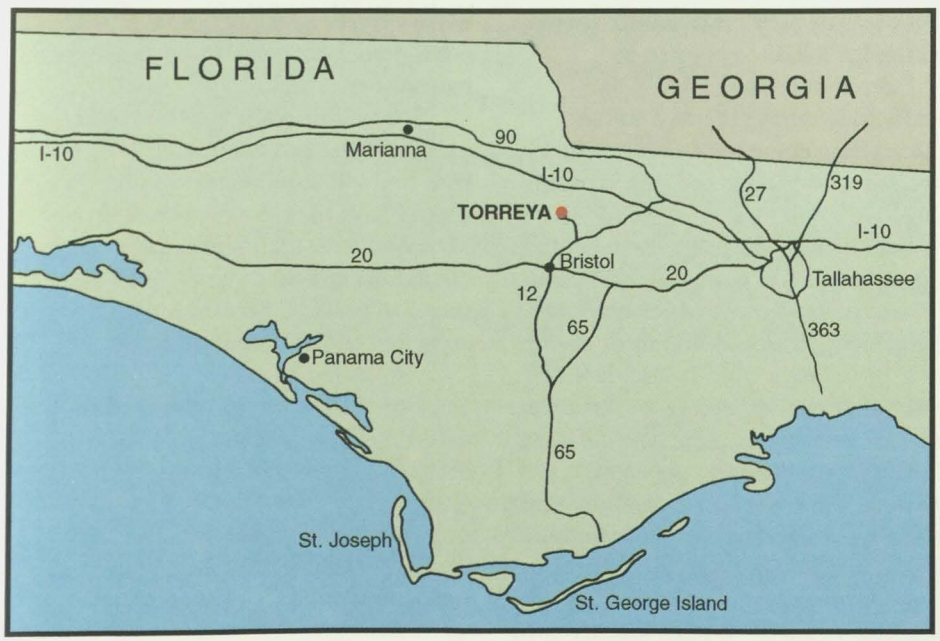
To hedge their bets against further microbial destruction of this species, naturalists are working on a couple of fronts. Angus Gholsum, an amateur botanist from Chattahoochee, is saving Torreya tree seeds to preserve their genetic material. Others are taking tissue samples to propagate offspring.

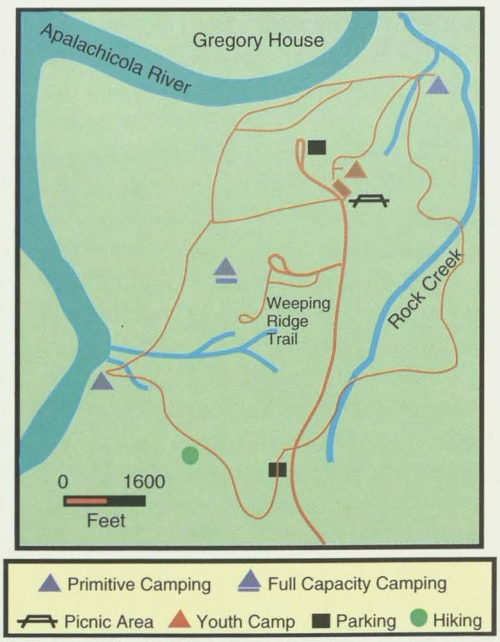
Another hurdle in the way of this species' survival is its own very slow reproductive rate. One of these trees in a woman's yard in north Florida has produced seeds only three times in 54 years. It may be very difficult for this species to get by without a little help from its human friends.

What is the prospect for the continued survival of Torreya trees? "It is grim. We're losing 10 percent every four years," says Anne Harvey, the park's manager. "It's a good bet all the (Torreya) trees in the park could be diseased."

Besides creating a niche for Torreyas, the natural forces which shaped this park and surrounding area created homes for a variety of wildlife that seem out of place compared to much of the rest of the state.

"Because we have the ravine and bluff system here it provides a microclimate where creatures that live 230 miles farther north can live here," says Harvey. "There are about seven different habitats that come together here. Torreya is on the eastern limit of Western species, the southern limit of ▷





MAPS AND PAGE 31 PHOTO BY PEGGY PERKERSON

Northern species, the northern limit of Southern species, and so on."

What all does that include? Plants mainly, such as mountain laurels, downy rattlesnake-plantains and the American winged elm. Torreya's terrain is forested with many hardwoods that commonly occur in Georgia's section of the Appalachian Mountains. And they provide the best blaze of fall color to be seen in Florida, say park employees.

Animals which haven't been identified in decades have been found in Torreya. "We collected a red-back crayfish that had not been collected in 54 years," says Harvey, who added that could have been because nobody was looking for it.

The park is also home to the Torreya trap door spider, which is known to live in only a few restricted locations in the Panhandle. While its home may be a lowly hole in the ground, the entrance to its abode is a silk trap door.

Recently park rangers completed a herpetological survey of Torreya to find out what kinds of snakes, turtles and amphibians lived in the park. "It has the third-highest concentration of herpetological species north of Mexico," Harvey says.

One of these is the Apalachicola dusky salamander, which is related to ones normally found in mountains. Another is the Barbour's map turtle. It is protected under law, which matters not a whit to the park's bald eagles.

"The bald eagles eat them," Harvey says. "The eagles are threatened and the turtles are a species of special concern."

The same pair of bald eagles has been nesting in the park for seven years, and used the same tree and nest to raise their young, until the tree was done in by lightning and Hurricane Opal. When they returned to the park to nest this season they had to find a new tree.

"You could hear them calling back and forth to each other," says Mary Jones, one of Torreya's three park rangers. "It was as though she was saying, 'Dear, what do you think about this one?'"

With the opportunity to enjoy the park year 'round, Jones knows it intimately. "My favorite time of year is the end of April and May because of the lightning bugs. They're thick and you can see them in the thousands."

Animals which haven't been identified in decades have been found in Torreya.

There are about seven different habitats that come together here.

The park's 14 miles of trails offer other splendors. Dogwoods and redbuds burst into bloom in the spring. Magnolias shoot up, racing their neighbors to the sky. Loblolly pines, small needle palms and a profusion of hardwoods crowd the hills.

At times along the park's trails you can see the paw-work of armadillos which dig small holes grubbing for insects. Immigrants to the United States from Central America, these mammals have a perpetual smorgasbord in Florida's bug-rich environment.

Frequently in the forests of the river bottom by the Apalachicola, red-shouldered hawks, Cooper's hawks and other birds of prey make their rounds, looking for meals to pounce on.

Deer abound here. While they usually hide during the day, in the evening they come out to browse and often wander through the park's campsites.

Besides car camping, Torreya offers backpacking amid bounding hills and small seepage streams which feed the Apalachicola River. While most of the few hilly areas in Florida undulate gently, the hills of Torreya go through their ups and downs more abruptly.

Hoping to limit the impact of humans on the park, officials allow only up to a dozen backpackers to spend the night at one of two primitive campsites. The park offers no reservations for backpackers, so it's a good idea to show up early and hit the trail as soon as possible.

Beyond the natural world, Torreya also offers a bit of human history in the form of a large two-story wooden house built by plantation owner Jason Gregory in 1849. The house was originally on the opposite and low side of the river, where Gregory used slave labor to raise a variety of crops, including cotton. You can get information about tours and other aspects of the park by calling (904) 643-2674.

Lower down the bluff from where the Gregory House stands today, are gun emplacements which were dug into the bluff by Confederate artillerymen, who mounted a half-dozen heavy cannons to prevent Union ships from running up the Apalachicola. The men of this gun battery never saw any fighting here, other than their incessant war against mosquitoes.

Today Torreya State Park is an excellent place to wage your own war to free yourself from the crush of urban living. Says park ranger Frank Dyer, "People are excited about the peace and quiet. One guy said it was the best-kept secret in Florida. I asked him if he was going to tell people, and he said 'No.'"

Frank H. Adams is the associate editor of FLORIDA WILDLIFE magazine.

The back cover has another view of the Torreya State Park by photographer James Valentine.

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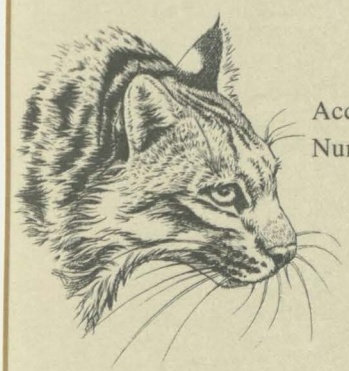

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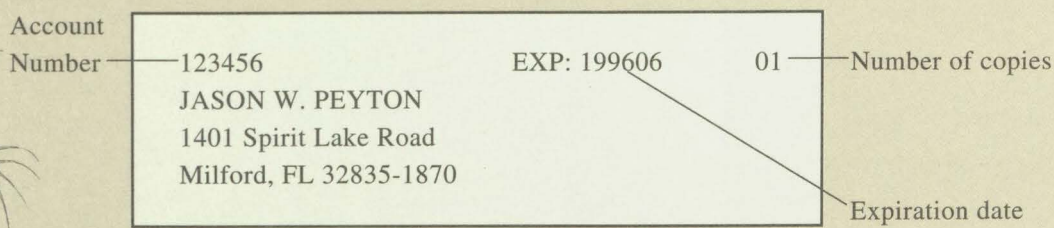

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